History of transportation in Minnesota /

HISTORY OF TRANSPORTATION IN MINNESOTA.* BY GENERAL JAMES H. BAKER.

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Our present systems of transportation are the outgrowth of a method and order of evolution, not as slow as the Darwinian, but steadfast in the principles which have governed their development. From the carrier in the Soudan, with his load upon his back, or the Indian in his birch bark canoe, down to the modern splendidly equipped railway, or the superb ocean steamer, it has been a continuous development, and one that has caused and marked the progressive steps of man in trade and commerce, being, in itself, the highest mark of the best civilization. Safe and rapid transportation is the fruitful mother of material wealth. There seems to be no limit to its growth, and we wonder what next will quicken the movement of peoples and of products. In peace, or in war, safe and rapid transit has been the synonym of power. That upon China, a vast empire, but without the means of rapid or reasonable transportation, the very curtain of history should drop as blankly as if it belonged to some other planet, is perfectly apparent; while England, but a little island, by means of every modern system of transportation, has carried her arms, her commerce, and her power, into all the regions of the globe, gathering wealth in her movements as a universal carrier.

Rapid transportation sets in motion mighty tides of immigration, and is the spur to all commerce. It tunnels the mountains, it bridges the valleys, it deepens the rivers, it opens the wilderness, and builds new empires. It opened the Suez canal as a new gateway to the opulent East, and will yet cut 2 its way through the Isthmus of Panama, bringing the two great western oceans together. It brings the most distant nations into familiar intercourse, and banishes the spectre of famine by the even and speedy distribution of every human necessity.

The annual export and import trade of the world has been estimated at \$4,250,000,000, a sum so vast as to be practically incalculable; but it all turns upon the single pivot of transportation. Think of its currents and counter-currents, like millions of mighty shuttles, weaving the stately web of the world's trade and wealth! All lands and all seas are now open to the wondrous modern facilities of transportation, and if we can forefend the cataclysm of universal war, where will it all end? These gigantic movements call for merchants and statesmen, clothed with the highest faculties, to meet the weighty problems which this volume of trade, with its intricacies and complexities, is pressing for consideration over the whole sphere of the earth.

To trace the history of our own transportation in the domain of Minnesota is to mark, step by step, our growth and development, from savagery, to our present stature among the great powers of the world. From the "drag" of two poles tied to the pony of a Sioux Indian, to a modern steam engine, or from the birch bark canoe to a "whaleback," or steel steamer on lake Superior, is the very measure of our growth in power and civilization.

ABORIGINAL TRANSPORTATION AND TRAFFIC.

The North American Indians, as found by Columbus, were the earliest historic people who vexed our rivers and lakes with the paddle of the canoe. The Dakota nation and related tribes occupied the Missouri and upper Mississippi basins, while the Ojibways possessed our lake region, at the time of the advent of the French. Learning and research have not yet been able to unravel the mystery of the origin of the Indian race of North America. With their primitive modes of transportation, however, we are all familiar.

Preceding these, in the order of time, were the Mound Builders, a prehistoric race, who conducted traffic on our rivers and 3 lakes more than a thousand years ago, as proven by the fact that two forests of timber have grown over the tumuli, near the Mississippi river, each forest requiring five hundred years to complete its growth and decay. In these groups of mounds we find virgin copper, that must have come from mines in the region

of lake Superior, which establishes the fact of that early traffic across our state. It is now fully substantiated, that they penetrated as far north as Itasca lake, and were on every branch of the Mississippi in its upper basin, and had even pushed their way across the continental divide into Canadian territory. It is also in evidence that the very portages used by our historic Indians were used by the Mound Builders, and that these shortest and most eligible routes between our water ways were discovered and occupied for centuries, and long prior to their occupation by our present Indian tribes.

Who these people were, we know not; but that they were here is incontestable, and that they had modes of transportation is beyond doubt. Our aboriginal historic Indians, of whom we have some knowledge for about four hundred years, have even no legendary information concerning the people who built the mounds, nor have they themselves ever been mound builders. Our first transportation was conducted, therefore, by that prehistoric people.

But if we desire to be really curious and learnedly inquisitive, we can go back of all these. There are on deposit, in the vaults of this society, prehistoric clipped flints found at Little Falls, Minnesota, which date back probably five thousand years, according to the opinion of Prof. F. W. Putnam, the curator of the Peabody Museum. These implements, found by Miss Frances E. Babbitt, were under sand and gravel, which formed the flood plain of the Mississippi river in the closing stage of the Glacial period. They bring us face to face with Glacial man, existing upon the southern boundary of the great ice sheet which once enveloped the Northwest. Did these people possess the means of transportation of their persons and property? and if so, what? Without pursuing this inquiry, we know enough to be fully assured that a thousand years before the keel of Columbus plowed the waters of the Atlantic in quest of a new world, transportation was in active operation 4 on the lakes and rivers of Minnesota, by the strange and nameless people who left us the tumult scattered over our state as the indubitable evidence of their occupancy and activity.

PERIOD OF FRENCH EXPLORATION.

Following the North American Indians, if we look for the first white men who navigated our waters, we find them in Peter Esprit Radisson and his brother-in-law, Sieur des Groseilliers. In their "fourth voyage" these intrepid Frenchmen visited the southwest portion of lake Superior, fourteen years before Joliet and Marquette explored the lower part of the Mississippi river. Radisson and his companion discovered the upper Mississippi in 1659. They coasted along the south shore of lake Superior, probably to the bay, Chequamegon, meaning a "long point of land," near Ashland, in Wisconsin. The Indian name of the bay was Sha-ga-wa-ma-kon. They probably passed to a point between Kettle and Snake rivers, not far from Hinckley, Minnesota, thence to Mille Lacs and thence to discovery and crossing of the Mississippi river, at an unknown and unascertainable point, probably between the mouth of Sank river and the mouth of Rum river. They were the first white men who visited the country now embraced in our state and paddled the first canoe through our waters. They came, as they themselves state, "in search of furbearing countries." It was commerce and trade, therefore, which opened this region to the knowledge of the world.

I am well aware that I stood in this very place January 24, 1879, Henry Hastings Sibley being in the chair, and delivered the annual address, then as now, of this society. My topic being "Lake Superior," I then said: "Religion was the grand inspiring motive which first gave lake Superior to the knowledge of our era." The publication of Radisson's "Voyages," by the Prince Society in 1885, constrains me to note, in contrast with the missionary labors of Marquette and others, that the earliest Frenchmen to explore the west part of lake Superior, to enter the area of Minnesota, and to see the Mississippi river, were led here for traffic and commercial gain.

There is no sufficient reason, in my judgment, even to attempt the impeachment of Radisson's quaintly told story. It 5 sheds light upon the first navigation of our waters in the very twilight of our history. It comes to us like a voice from the dead past, out of the Bodleian Library and British Museum. I am the more confirmed in my views as to the

integrity of the Radisson annals by reason of the fact that the late Alfred J. Hill, long an honored member of this society, and Hon. J. V. Brower, the most careful and laborious archeological scholars this state has yet produced, both fully agree, after a careful consideration of all the facts for a period of four years, that Radisson's story is true, and, in their judgment, ought not to be further questioned.

Next in the order of time came the Jesuit Fathers. In 1665, on the shore of Chequamegon bay, Allouez established the Mission of the Holy Spirit, and four years later was succeeded in the same mission by Marquette. The Jesuits found upon the shores of this inland sea, many warlike tribes, but chief among these were the Chippewas, who filled almost the entire basin of Superior. The French early formed an alliance with these Indians, and the attachment has continued to this day. Their nomenclature was given to many places by the Jesuit Fathers; and it is a debatable question whether Minnesota did not receive its name from Chippewa, rather than Sioux sources.

A most noteworthy French adventurer came into this country as early as 1683, named Le Sueur, who, twelve years afterward built a fort, or trading post, on the Mississippi a few miles below the mouth of the St. Croix. He came from Montreal, through the northern lakes, following the line of trade then establishing itself within the area that is now Minnesota. Le Sueur returned to France, and received from the Grand Monarch a license to open certain mines on the St. Peter river. The whole story of this mineral search is shrouded in romance and mystery. Instead of entering the country by the old route, he went to the mouth of the Mississippi river, and then, organizing his expedition, which consisted of twenty-five men, mostly miners, he equipped a felucca, and in April, 1700, started upon a journey as visionary as Jason's in search of the Golden Fleece. After some time he increased his means of transportation by the addition of two canoes, and with these 6 little boats he bravely stemmed the current of the great river a distance of more than 2,300 miles. His felucca was the first boat with sails which ever ascended the Mississippi. Near the confluence of the Blue Earth river with the Minnesota, he seems to have found the object of his search. Here they spent the winter of 1700. When the last

detachment of Le Sueur's party left the next year, they cached their tools in that vicinity, and I have often endeavored to find the spot, but without success. Le Sueur failed in the object of his expedition, to discover and open valuable mines, as did De Soto in his pursuit of gold, and Ponce de Leon in quest of the fountain of eternal youth; but he opened up our rivers to transportation, and carried back to France 4,000 pounds of supposed copper ore, being the first boat load of freight, a native product, carried by a white man on the Minnesota river.

LATER TRAFFIC OF THE MINNESOTA VALLEY.

While speaking of the Minnesota river, it is as well to complete such reference to its early navigation as is deemed important. After Le Sueur, it was sixty-six years before we hear of another white man ascending the old St. Peter's river. Ten years before the Declaration of Independence, a medical student from Connecticut, who had become a captain in the colonial French war, Jonathan Carver, turned his canoe into the waters of the St. Peter's river, to the vicinity of the site of New Ulm, where he spent the next winter with friendly Dakotas. Carver was confident that, if he could have continued his travels, he would find some river flowing westerly and leading to the Pacific ocean.

In the year 1800, we find trading posts established in the St. Peter's valley by the Northwest Company of Montreal. The first one was located at Lac Travers, the next at Lac qui Parle, and the third at Traverse des Sioux. These forts were erected by that wonderful race of men called *coureurs des bois*, who came in by way of the Red river. This was the establishment of an early and fixed trade on that river. After these came Lieut. Zebulon M. Pike, in 1805. He was an officer of the United States army, and came to require obedience to United States laws by certain British traders who still hoisted the 7 British flag over their trading posts in violation of the treaty of 1783. He found these trading posts, up the St. Peter's river, and others on the upper waters of the Mississippi, in full operation. In 1823, Major Stephen H. Long, of the United States topographical engineers, ascended the St. Peter's river. A little later, our army officers found some remarkable men in charge

of the growing trade of the St. Peter's valley. At Lac Travers was Joseph R. Brown; at Lac qui Parle, Joseph Renville; at Traverse des Sioux, Louis Provencalle; and at Little Rapids, Jean B. Faribault. These men were identified with every movement of trade in that era. The trade was carried on by packers, dog trains, and canoes. The earliest of these trading posts was transferred from the Northwest Company to John Jacob Astor, in 1811; Astor transferred them, in 1834, to the American Fur Company, of which Ramsay Crooks was president; and they were finally transferred, in 1842, to Pierre Chouteau, Jr., and Company, of St. Louis. H.H. Sibley became, in 1834, a partner of the American Fur Company, and the same year he established his headquarters at the mouth of the St. Peter's river.

Thus were trade and commerce firmly established in the valley of the St. Peter's river. This was the first era of trade of white men in that region. The next era was the advent of steamboats on that river in 1850, to be followed by the railways in 1867.

LAKE SUPERIOR AND THE FUR TRADE.

We must always remember that Minnesota was discovered by the way of lake Superior; that our earliest traders, voyageurs and missionaries, all came to us by way of the great lakes. Commerce and transportation began from that direction; and our Indian coadjutors there were Chippewas, not Sioux. We recount with pride our early settlements and trade at Fort Snelling, Mendota, and St. Paul; but long before these there were bold and daring men on our northeastern frontier, leading a strange life, and abounding in commercial activity.

It is two hundred and twenty-eight years since Charles II ceased toying with his mistresses long enough to sign a royal license to a company of traders, known as the "Honourable Company of Merchants-Adventurers trading into Hudson's 8 Bay." The splendor of the precious metals of Mexico and Peru had hitherto dazzled the eyes of Europe. But royalty and beauty were now wrapping themselves in costly furs. So Prince Rupert went to his

royal cousin one day and asked and received the sole privilege of trade and commerce in all this vast region, larger than Europe, extending from the Atlantic to the Pacific, and from our great lakes to Hudson bay. For this grand monopoly he was to pay annually to his royal master, the king, two elk and two black beaver skins. The royal grant so made still remains and covers more than three million square miles. By the intervention of the crown, the new Dominion of Canada has secured Manitoba, British Columbia and Vancouver's Island, from the grasp of the Hudson Bay company; but the vast area north of these, to the Arctic seas, still belongs to the old monopoly. Under this charter, granted in 1670, this great company received not only the absolute rights of trade, but the privilege to build castles and forts, to carry on war, and to make peace, with any non-Christian people. With wonderful energy, the company raised and palisaded posts along the remote inlets of Hudson bay, extending their operations as far south as our own territory, and thus built up a colonial trade in furs. And when the French came into possession of Quebec, the company boldly pushed their fortunes to the west and established themselves along our own confines.

As a competitor to the Hudson Bay Company there was organized, in the winter of 1783, the Northwest Company of Montreal. These companies became bitter rivals and contested the barbaric field with obstinate pertinacity. Their feuds only ceased after the Earl of Selkirk, in the years 1811 to 1817, founded the Red River Settlement. The rival companies consolidated in 1821, the Northwest Company being merged in the Hudson Bay Company. Long years before the adventurous foot of the white man had pressed the soil where St. Paul now stands, and while St. Anthony's Falls was yet a myth in the wilderness, the bold voyageurs of these aggressive companies had found their way to the west end of lake Superior; had thence threaded the intricate communications which lead by lakes, streams and portages to Lake Winnipeg and the Saskatchewan; 9 and had penetrated even to lake Athabasca and Great Slave lake.

Fort William, built in 1801 to 1804, on the Kaministiquia river, was the chief western fort of the Northwest Company. Another important fort, of earlier date, was on our own soil,

at the southern terminus of the Grand Portage. The first important road, lying partly in our state, was the one built between these two forts, the bridges being made of cedar logs, the remains of some of which I myself have seen. The road was thirty-six miles long, and was built in the earliest years of this century.

The locality called Grand Portage, at the site of the old trading post and fort, on the south end of the portage of this name, is on a small crescent-shaped bay, which has an island at its entrance, 146 miles from Duluth. There is still a band of Chippewa Indians located there. I have read, at Fort William, in a journal of one of the employees of the Northwest Company, a very minute and detailed account, in a rude diary, of the scenes of enterprise and traffic which he saw at Grand Portage in the summer of 1800. It appears that at that time there stood in the center of the semicircular shore of this bay a large fort, well picketed, enclosing several acres of ground. I have camped upon the spot several days, and found the place most eligibly situated for the purposes intended. Here, the diary says, was a house for officers and men, and a building for storage and stores. There was a canoe yard containing one hundred canoes of all sizes. Seventy canoes were contracted for annually for the commerce of that place. His diary notes that on July 3d, 1800, thirtyfive great canoes arrived from Mackinaw, each carrying from three to five tons of goods, with eight voyageurs to a canoe. Over seventy canoes had already arrived from the west, coming from Lake Winnipeg through Rainy river, from the Saskatchewan, and from the Athabasca and Great Slave lakes. These were laden with furs and pelts. The thirty-five great canoes, from Montreal, 1,800 miles away, were laden with a year's supply of goods, food, liquors, tea, etc. Grand Portage was at that time, and as early at least as 1767, the grand exchange and distributing center for the fur trade in that part of the world. The factors themselves were present for the great annual settlement 10 of business. The diary goes on to relate that several hundred white men were there assembled, and that over seven hundred Indian women were retained by the company to scrape and clean the skins, and to make up the packages of pelts. The writer describes the scene as having all the air of a busy city.

On that night of the 3rd of July, 1800, according to the diary, the factors gave a "great ball." The large dining room, with its puncheon floor sixty feet long, was cleared, and inspiring music was furnished by the bagpipe, violin, and flute. Thirty-six gallons of rum were issued by the factors, which made the night hilarious. There was a plenty of women, too, and "beautiful half-breeds" who danced well. One Indian woman got drunk and killed her husband.

These scenes at Grand Portage took place twenty years before the corner stone of Fort Snelling was laid, and thirty-eight years before the first white man claimed land in the vicinity of St. Paul. Here was a busy town, a mart of exchange and trade, with a commerce extending to Montreal, 1,800 miles east, and to Great Slave lake, 2,000 miles northwest. Transportation must have been vigorously conducted for the vast distances covered. Count Andriani, an Italian, was at Grand Portage in 1791, and its activities were the same. Surely trade and commerce in Minnesota, and pretty good transportation, too, did not begin with the men of this generation.

A romantic interest attaches to some of these bold and daring early voyageurs and traders, brave Scotchmen, whose fortunes were lost in the memorable battle of Culloden, in 1746, and who fled to British America. Their blood gave vigor and force to the affairs of the traders. In the veins of many of the half-breeds and bright *bois brulé* girls on the Red river flows the blood of the men who fought for Lochiel and the Camerons, near Inverness, in 1746. It only needs the glamour of the glittering pen of a Walter Scott, or the power which warms Cooper's thrilling stories, to weave their wild annals into romances as fascinating as Waverley, and as charming as the border scenes depicted in the Leatherstocking tales. I have also read, in Parkman's histories of New France, how Cardinal Richelieu headed the company of the "One Hundred Associates," in 1627, who engaged in the fur trade in Canada. That 11 company was at last merged in the Northwest Company, which links these noted characters to our territory, and to a time within the memory of men yet living. Upon our own border we are allied back to the days of Louis

XIV, of France; to Charles II, of England; and to the great chiefs and clans of Scotland, who fought at Culloden when the flag of the Stuarts went down forever.

Thus began the era and the reign of the celebrated fur companies in and about the basin of lake Superior. They were the lords of the lake. They dwelt in semi-baronial state in their grand chateau at the Sault Ste. Marie, or transacted the yearly business at their castellated rendezvous, Grand Portage, now in Cook county, Minnesota.

We must here notice a very remarkable body of men, brought into action by the fur companies, who rapidly became a distinctive class. The voyageurs and coureurs des bois (rangers of the woods) were the pioneers of the commerce of lake Superior, and of our northern waters. They were the common carriers of that era. Bold, daring, courageous, they navigated the entire chain of lakes and rivers from Montreal to Athabasca freighting pelts and transporting supplies over an area of country as large as Europe. Swarthy, sunburnt, and fearless, they were the heroes of the paddle; and for years their cheery songs were heard and their fleets were seen along the rugged shores of our great lake and in all the country northwestward, portaging over rocks, shooting rapids along roaring rivers, and traversing mighty wildernesses. They would have laughed at the obstacles of the Klondike. At a later date, they performed the almost incredible feat of crossing and recrossing the continent in birch bark canoes, in a single season, and passed from the mouth of the Columbia, on the Pacific, to Fort William, on Lake Superior, with all the regularity of a steamboat. They were indeed a wonderful race, lively, fickle, polite, reckless, and immoral, full of song and stories of wild adventure. They crossed and recrossed the continent long years before Jay Cooke or James J. Hill ever dreamed of marrying our inland sea, with steel bands, to the Pacific ocean, and nearly upon the same geographic lines. One has to read the brilliant pages of Irving's Astoria, or the adventures of Capt. Bonneville, to fully appreciate the character 12 acter of the early voyageurs who so boldly crossed the continent in canoes more than a hundred years ago.

In 1765, by an edict of royal authority, the traders were required to procure a license, and the first authorized trader was Alexander Henry, grandfather of our late friend and associate, Norman W. Kittson. Henry received the exclusive right to trade on Lake Superior. He was methodical, and kept a diary to which we are deeply indebted. His first stock consisted of the freight of four large canoes, on twelve months' credit, to be paid in beaver pelts. All accounts were kept in beaver skins. I have found the market price at that period, in the Hudson Bay Company's journals. A single blanket was worth ten skins; a common gun, twenty; a pound of powder, two; a pound of shot, one; and a pint of rum would buy anything an Indian had. The amazing extent of this trade is evidenced from the fact that Henry, in one expedition, secured 12,000 beaver skins, besides great numbers of otter and marten, and the skins of some silver-tailed foxes.

Some idea of the extent of the canoe commerce along the shores of our great lake may be further gathered from Harmon's journal (published in 1820), who records that he left the Sault Ste. Marie, on his way to Grand Portage, June 1st, 1800, in company with three hundred men, in thirty-five canoes. On his way beyond Grand Portage, in the descent of Rainy river, he met, on July 26th, twenty-four canoes from Lake Athabasca, laden with furs to be sent to Montreal. Surely there were men here engaged in all the activities of a wonderful commerce, before our advent upon the stage. Neither Duluth, St. Paul, nor St. Anthony, were the first commercial marts of our territory; for the records of the Hudson Bay Company, seen at Fort William, pertaining to dates earlier than those already noticed, show that Grand Portage was a commercial emporium, full of trade, shops, style and fashion, with drinking places and police officers, the very day John Hancock signed the Declaration of Independence.

But we must no longer pursue this fascinating theme, which might be profitably continued through the wars and consolidations of the great fur companies.

The period of their extensive trade on Lake Superior and in the area of the great Canadian Northwest, under the British 13 flag, with encroachment on territory in Minnesota

surrendered to the United States by the treaty of 1783, extended no later than forty years from that date. In 1823 the expedition of Major Long, visiting Fort William on their eastward return from Lake Winnipeg, found the large fort nearly deserted, the fur trade on this route north of Lake Superior having greatly declined. This traffic had passed to the rivals and successors of the Northwest company, being diverted northward to the Hudson Bay Company, and southward to fur traders of the United States.

John Jacob Astor, a German furrier and merchant of New York, who had the highest enterprise for the extension of domestic and foreign trade, went to Montreal in 1816 and bought all the posts and factories of the Northwest Company south of the line which Franklin's sagacity and foresight had given us as the international boundary. American lads from Vermont were brought out, and under the influence of the American Fur Company lake Superior began to be gradually Americanized. Astor's first agent was Ramsay Crooks, father of Col. William Crooks of St. Paul. Their headquarters were at La Pointe, on an island partly inclosing Chequamegon bay near the head of the lake. Charles H. Oakes, a youth from Vermont, appeared upon the scene. Associated with Oakes was Charles William Wulff Borup, a young Dane, from Copenhagen, and many other names of strong and able men, like William and Allan Morrison. In 1842, the American Fur Company closed its business and sold its interests to Pierre Chouteau, Jr., and Company, of St. Louis, who were represented by Henry M. Rice. In 1849 Rice retired from the trade, and the fur interests, no longer represented by a powerful company, soon ceased to maintain the ancient supremacy, and gradually melted away before the advent of new interests. Thus practically closed the most remarkable era of early trade and commerce ever connected with the history and fortunes of any people.

The Indian title existed around the entire extent of lake Superior until the year 1820, when, on June 16th, Lewis Cass formally hoisted the United States flag at the entrance of the lake, and made the treaty by which the Indians ceded a tract of land four miles square adjoining the Sault Ste. Marie. A 14 treaty made six years later opened the south shore to commercial activity, and thenceforward a new life of trade and commerce was gradually

developed upon our inland sea. These treaties, and two subsequent ones in 1842 and in 1854, completed the cession of the shores of the great lake, so far as they lie within the United States, and transferred the title from the former Chippewa possessors to our national government.

We can give no better illustration of the transportation in use during that early period than is related by the great Schoolcraft in describing the first advent of a body of United States troops along the shore, after one of the treaties; how they came, sixty men and officers, with a commissariat and a medical department, borne on three great twelve-oar barges, attended by four boats of subsistence and a fleet of canoes, with martial music and with flags flying. As the fleet stretched out in grand procession, Schoolcraft declares it "the most noble and imposing spectacle ever yet seen on the waters of lake Superior."

The advent of the first sail vessels is not yet lost in obscurity. Henry records that in the winter of 1770–71 he built at Pine point on lake Superior, nine miles from the Sault, "a barge fit for the navigation of the lake," and his narration shows it to have been rigged with sails. In August, 1772, he launched, from the same shipyard, a sloop of forty tons. These vessels, used in unremunerative mining operations, were the earliest sailing craft known in the history of lake Superior. Harmon mentioned, in 1800, a vessel of about ninety-five tons burden in use then by the Northwest Company, plying four or five trips each summer between Pine point and Grand Portage.

Schoolcraft relates that on the 9th day of November, 1833, "wheat in bulk, and flour in bags and barrels, were brought down for the first time." This is the earliest record of the shipping of any native products from lake Superior, other than pelts and the commodities exchanged for them.

TRANSPORTATION BY CANALS.

The rapids in the Ste. Marie river were the one great obstacle to good transportation on lake Superior, and in 1837 Gov. Mason, of Michigan, by authority of the legislature,

authorized 15 the first survey of a proposed canal, and Henry M. Rice, then a young man, carried the chain. A grant of lands was given by congress, 750,000 acres, in 1852; and Erastus Corning, Joseph Fairbanks, and others, constituting the St. Mary's Falls Ship Canal Company, finished the first work on the canal May 21st, 1855.

It should be here noted that Harmon's journal records the fact that previous to the year 1800 the Northwest Company had made a smaller canal and locks at the Sault Ste. Marie of sufficient size for the passage of large loaded canoes without breaking bulk. But no eye can foresee or pen predict the swelling commerce from a double empire—the British and American—in the rapid progress of events yet destined to pass over those mighty lakes, through those gates, in its march to the sea.

God never built a railroad, but He did create and establish rivers, lakes, and oceans. Here there are no charges. They are the highways of the Almighty. They are the ever present and constant competitors of every artificial form of transportation. They confront every railway corporation, and supervise its schedule of rates. The great lakes say to every railway company in the Northwest, "Before you fix your schedules, come and see us." These waterway potencies are stronger than governmental interferences. Minnesota, by its superb situation, commanding the Mississippi and the western limit of lake navigation at Duluth, has its full measure of satisfaction and protection by means of its waterways.

There has been more than one effort made to extend our great lacustral waterway farther west into the continent. In 1878 a convention was held at Duluth for the purpose of projecting a canal from lake Superior across the state to the Red river. Three routes were proposed: one was the Winnibigoshish line; the second, called the southern route, by the Grow Wing river and Otter Tail lake, to Fergus Falls; and still another, by Pigeon river, called the international route. Some of these canal routes were deemed as practicable as the improvement of the Fox and Wisconsin rivers, connecting Green bay and the Mississippi. This whole project was very seriously considered, and more than one survey was undertaken. The purpose was to penetrate into the world's best 16 zone of wheat,

with water carriage. The project derived some stimulus from the fact that our Canadian neighbors were then building what is known as the "Dawson route," to connect lake Superior through many lakes and water stretches, with the Lake of the Woods. This included an immense lock at Fort Frances, near the mouth of Rainy lake, to pass the Koochiching falls of Rainy river, which was actually nearly completed at an immense cost. The Canadian government really established this route, putting tugs on the lakes, and ox carts on the portages, and thus carried thousands of their emigrants to Manitoba. I doubt not that somewhere in our northern lacustrine region lies the undeveloped form of a great East and West canal, planned by engineers and once confidently expected to be finished; but the iron horse which came to browse in the haunts of the elk and the buffalo has relegated these projects to the limbo of abandoned schemes.

STEAMBOATING ON THE MISSISSIPPI AND MINNESOTA RIVERS.

We must now return a moment to the great Father of Waters, on whose bosom had floated, in the twilight of long ago, Hennepin, Du Luth, Le Sueur, and the intrepid French voyageurs and traders.

May 10th, 1823, occurred a stirring event, the arrival of the first steamboat, the "Virginia," from St. Louis, loaded with stores for Fort Snelling. This was the first steamboat ever seen by our Dakota Indians, and their fright was extreme, as they thought it some supernatural monster. The Virginia opened the upper Mississippi to steam navigation, and up to May 26th, 1826, fifteen steamers had arrived at Fort Snelling. In 1839, about nine steamboats were running pretty regularly to Fort Snelling. In 1847 and 1848 there was organized what was known as the Galena and Minnesota Packet Company. Among the list of the company we find the names of H. L. Dousman, of Prairie du Chien, and H. H. Sibley, of Mendota. This company first purchased the steamer Argo, of which M. W. Lodwick was captain, and our honored vice president, Russell Blakeley, then of Galena, was clerk. In the autumn of 1847 this boat struck a snag near Wabasha and sank. During the next winter the captain and clerk went to Cincinnati, 17 Ohio, and purchased the Dr. Franklin,

which was run very successfully for many years. Russell Blakeley, having been clerk of this steamer five years, in 1852 became its captain, and afterwards was captain of the Nominee and the Galena. bringing to St. Paul on these boats thousands of our earlier and best citizens.

The organization of the Galena and Minnesota Packet Company established system and regularity of our river transportation; and from that time the river became the chief artery of our trade and the inlet to our immigration, till superseded by railways. In the "forties," St. Paul averaged from forty to ninety steamboat arrivals per annum. Following the Galena company came the Dubuque and St. Paul Packet Company, the St. Louis and St. Paul Line, and many others, to the last, the Diamond Jo Packet Company, which still exists. This review calls up the honored names of Davidson, Reynolds, Rhodes, and many others. The steamboat business became vast in extent. The culmination of this method of transportation was about 1857 and 1858. The former year there were 965 arrivals, and in the latter year, 1,090. The arrival of a Mississippi steamer in that earlier era was a matter of the greatest importance, and curious crowds gathered at the landing to witness the scene. When I first came to Minnesota, in May, 1857, on the old War Eagle, I thought the whole population had turned out to give me a welcome!

The advent of steamboats into the Minnesota river gave a wonderful impetus to the settlement and development of that fertile valley. I have verified the statements by the files of the old *Pioneer*, whose editor, James M. Goodhue, accompanied both of the earlier expeditions up the river and wrote a detailed account of each. On Friday, the 28th of June, 1850, the steamer Anthony Wayne, which had just arrived at St. Paul with a pleasure party from St. Louis, agreed, for the sum of \$225, to take all passengers desiring to go, as far up the river as navigation was possible. About three hundred guests, with a band of music from Quincy, Ill., and the Sixth Regiment band from Fort Snelling, started up the river. They fought mosquitoes, danced, and passed a dozen Indian villages, till they reached the mouth of the Blue Earth river, above Mankato. 2 18 Again, says Goodhue, on the 24th day of July, 1850, the steamer Yankee ascended the stream, and, picking

up the shingle of the Anthony Wayne, carried it as far as the mouth of the Cottonwood river. After the Indian treaty of 1851, navigation gradually became regular; and the Tiger, Nominee, Humboldt, Equator, Time and Tide, Jeannette Roberts, Frank Steele, and Favorite, appeared successively in the trade, till the advent of the iron horse drove them out of business.

OUR WAGON ROADS AND STAGE LINES.

Our wagon roads in the beginning were very crude. The first road has been referred to, running from Grand Portage to Fort William. The second was from St. Paul to Mendota, crossing the ferry at Fort Snelling. The next one was to the Falls of St. Anthony. In 1849, Amherst Willoughby and Simon Powers commenced running a daily line of wagons, during the summer only, between St. Paul and St. Anthony. In 1851, these same parties brought to Minnesota, and put on the line, the first Concord stages ever run in our state. In 1851, also, Lyman L. Benson and Mr. Pattison came from Kalamazoo, Mich., and brought a large livery outfit. They put on a yellow line in opposition to Willoughby and Powers' coaches, which were red. A furious opposition resulted, and gave birth to the first "cut rates" in the history of our state. Afterward, in 1856, our good friend Alvaren Allen and Charles L. Chase appeared upon the scene, and run a line to the upper Mississippi; and in 1859 they consolidated with J. C. Burbank and Capt. Russell Blakeley, forming a new company under the name of the Minnesota Stage Company. In 1853, M. O. Walker established a winter line down through Minnesota and Iowa to Dubuque, and had the mail contract. But in 1858 J. C. Burbank & Co. got the winter mail contract and drove the other line out. In 1854 and 1855, William Nettleton established a line of stages to Duluth; but this line also was soon absorbed by the Minnesota Stage Company.

In 1851, J. C. Burbank established the first express business, and he was the father of that sort of transportation in this state. He was himself the first express messenger, and carried the first package entrusted to him, from Galena to St. 19 Paul, in his pocket. Later, in 1856, Capt. Russell Blakeley bought an interest in the growing business; and

with these enterprising spirits, Burbank and Blakeley, new life was infused into our young transportation system. The Minnesota Stage Company and the Northwestern Express Company were very closely identified in business relations. In 1860, John L. Merriam bought out the interest of Allen and Chase in the stage company; and for the ensuing seven years this firm of Burbank, Blakeley & Merriam carried on the stage and express business with wonderful energy and activity. Their aggregate routes covered about 1,300 miles, besides 300 miles more by "pony" routes. In 1865 they worked over seven hundred horses, and employed more than two hundred men. This firm left a splendid name for the energy, fairness, and justice which always characterized their dealing with the public as common carriers. But this very enterprising firm did not stop there.

In 1857 and 1858, Ramsay Crooks, agent of the Hudson Bay Company, sought transportation for the goods of that company through Minnesota to the far North. Captain Blakeley himself made the contract with Crooks in Washington, and Blakeley visited the Red river late in the autumn of 1858, and decided that it could be navigated. The next season a steamboat, the Anson Northup, was built on the Red river, and was run by the company under the command of Capt. Edwin Bell. This was followed by a contract with Sir George Simpson, of the Hudson Bay Company, to transfer their goods to the Red River Settlement, now Manitoba, from Montreal, through St. Paul. Soon the company built the steamboat International, and thus was navigation established on the Red river of the North.

The history which I have here glanced at affected the settlement and development of our state in the most substantial manner. Early transportation was thus established, amid innumerable obstacles, and carried over the whole extent of our territory, with a degree of energy and success that marks the men identified with it as bold, aggressive, and grand characters in the history of our early transportation.

We must recur a moment to an early and important road, established by the War Department as a military road, from 20 Mendota to the Big Sioux river. The work was

begun in 1853, and was completed in 1857, by authority of an act of congress. This road was located along the Minnesota river valley. It was the first road with bridges, and furnished good facilities for travel and early immigration. At one time, a system of plank roads was sought to be established, and our Territorial Legislature organized no less than six separate companies, but none ever materialized.

THE RED RIVER OX CART TRADE.

It would be a serious omission to neglect to mention the extraordinary cart trade with Pembina. The beginning of this trade is undoubtedly due to Norman W. Kittson, our well-known pioneer, and he blazed out that line of travel which was ultimately adopted by the Minnesota Stage Company. Kittson, in 1843, established a trading post at Pembina. This trade grew till 1854, when the firm of Forbes & Kittson had fully established a great line of business. For a period of about twenty years, the furs from the Pembina region were shipped in the most curious vehicle known to modern commercial life. It was a two-wheeled concern, of very rude but strong workmanship, made entirely of wood and leather, without a particle of iron, and would carry from six to seven hundred pounds. This cart cost about \$15. To the cart an ox was geared by broad bands of buffalo hide. Sometimes there were two oxen, driven tandem. No grease was used, and the creaking axles were heard far away. From Pembina to St. Paul was about 448 miles. They generally consumed some thirty or forty days in the trip, and would arrive in St. Paul early in July.

The drivers were not less striking in their appearance than the carts and oxen. The Red river half-breeds (*bois brulés*) were a peculiar people with a character and dress half civilized and half barbaric. They generally camped near what was called Larpenteur's lake, near the intersection of Dale and Marshall streets. They brought down pemican, buffalo tongues, and buffalo robes, with furs and pelts, and took back teas, tobacco, alcohol, hardware, etc. In 1844 there were only six carts in the trade; in 1851, one hundred and two; and 21 in 1857, five hundred. The value of this trade was a helpful auxiliary to our

business in those early times. While in 1844 it was reported at only \$1,400, in 1863 it reached \$250,000. But the increase of the Burbank & Co. freight lines, the establishment of steam navigation on the Red river, and the Sioux war of 1862, combined to drive these primitive prairie carts out of the field of trade. The fur trade, it should be remembered, was always one of the chief sources of our early commerce and income. The prices of furs in some cases showed great fluctuation on account of changing demands of fashion. A mink skin, which in 1857 brought only twenty cents, in 1863 had risen to five dollars and even seven dollars in value.

WINTER TRAVEL BY DOG TRAINS.

The dog trains ought not to be forgotten, for during the long winters they did much freighting. Travellers would generally have these dogs driven tandem, and would travel from thirty to forty miles a day. Some traders, with great pride, would have a cariole, with jingling bells, such as Kittson and Rolette came in, when they had been elected to the Legislature of 1852; and their coming attracted as much attention as the arrival of a Mississippi steamboat in the summer. When Commodore Kittson's first wife died, on the spot where the Ryan Hotel now stands, her remains were taken from St. Paul to Pembina, in the dead of winter, by a dog train.

PRESENT TRANSPORTATION ON LAKE SUPERIOR.

Let us return and resume, for a moment, the story of our developing commerce, on the most prodigious body of pure water in the world. That from the feeble beginnings we have noted this inland sea should have developed its present vast traffic, is one of the most extraordinary facts of the commercial world. What would Alexander Henry or Henry Rowe Schoolcraft think, if they could witness the magnitude of the fleets which now cover its bright waters? The Sault Ste. Marie river is the key to lake Superior. The rapids of this river, from the level of one lake to the level of the other, fall twenty feet. To overcome this barrier was a necessity of our lake commerce. This natural obstacle has been practically

22 surmounted by our government; and in 1896 we have the official total of vessels passing through the "Soo" canals as 18.615, with a registered tonnage of over 17.000,000. More than 8,820 of the vessels were for Minnesota ports. To more fully comprehend the magnitude of this lake commerce, we may compare it with an official report which shows that but 3,434 vessels passed through the Suez canal in 1895, with a registered tonnage of only 8,448,225. The commerce passing the "Soo" was thus more than double that of the great inter-ocean canal of De Lesseps. Every year this trade expands. New vessels, with new designs and enlarged capacities, continue to astonish us. That remarkable class of vessels known as the "whalebacks" appeared in July, 1888, the first one being named "No. 101." The first of the enormous steel steamships of James J. Hill was launched in the winter of 1892–93, and entered on business the following June. It was named the "Northwest." It was followed by the "Northland," a sister ship, the following year. Such floating palaces are scarcely to be seen on any ocean of the world. Let me here note, for the enlargement of our minds to the measure of the lake traffic, that, for the year 1896, 47,942 carloads of grain were emptied into our lake vessels, or 59,828,999 bushels, all of which arrived at Duluth that year and was shipped through our lake on its journey to the east and to Europe.

Think of the big "400-footers" now on the lake, which can carry the products of a hundred farms! In 1895 the "Selim Eddy" carried 121,000 bushels of wheat. Within the past year the "Empire City" took out 205,445 bushels. This is about the product of 17,000 acres, at the average of our production. It would load 342 cars, and at forty cars to the train would make more than eight great trains of grain. It is 6,163 tons of grain. Converted into flour, it would make 46,000 barrels!

The growth of our lake trade is simply unparalleled in the history of transportation. Deeper waterways and bigger ships go hand in hand. New enterprises are constantly in the air. It is now whispered that the transcontinental lines are to open up trade from the lake with Asia; while another dream is to make deep waterways connecting with the Atlantic 23 so that vessels may pass, without breaking bulk, to the waters of the ocean. It may be

something more than a dream, that we shall yet hear the ebb and flow of the Atlantic on the shores of the Zenith City. Our lake steamship trade is the marvel of the world. Great records are made only to be broken.

But we are not yet done and must linger to note that an entirely new commerce has appeared on the north shore of lake Superior. Originating within our own territory, the rapidity and magnitude of its growth is absolutely astounding. In 1883, not a pound of iron ore had yet been shipped from Minnesota. The Vermilion range was opened in 1884, and the great Mesabi not till 1892. In 1897, the Mesabi produced twice as much ore as either the Marquette, Gogebic, or Menominee ranges. The port of Two Harbors takes both Vermilion and Mesabi ores, while Duluth handles Mesabi ores only. The investment in the lake Superior ore trade, including mines, buildings, railroads, and docks, has been estimated at \$150,000,000; and the value of the fleet doing this special Transportation is but little short of \$50,000,000. The latest movement in the transportation of this ore appears in the fleet of steel steamers, put in our trade by the Bessemer Steamship Company of Cleveland, behind which is John D. Rockefeller. They are now building these steam monsters with a capacity of 7,000 gross or long tons, with barges of equal capacity. The lakes control the entire ore traffic.

This inland navigation starts with Minnesota. Among the components of its volume, ore stands first, grain second, lumber third, and then comes general merchandise. In 1857, it cost nearly ten cents per bushel to ship wheat from Chicago to Buffalo; but in 1897 wheat was shipped from Duluth to Buffalo at rates slightly over one and a half cents. Ore has been carried from our ports to lake Erie, in 1897, for 57 cents a long ton; and returning vessels have carried coal to Duluth for 15 cents a short ton.

THE ADVENT OF RAILWAYS.

It has been well said, that the highways of nations are the measure of their civilization. By means of speedy transit, 24 society, government, commerce, arts, wealth, intelligence, are

developed and advanced to their highest excellence. The thirty-one roads which radiated from the forum of Rome into her vast provinces, like spokes from the nave of a wheel, were proofs of the wisdom and grandeur of the Roman rule. The substitution of turnpikes for muddy lanes is on the line of true progress. In the pre-railway times of England, freight transportation by earth roads averaged twenty-six cents per ton per mile. The railways came and soon carried a ton of goods twenty-five miles an hour for two cents per mile. The value of a wagon load of wheat is totally consumed in hauling it on an earth road three hundred miles. The advent of the locomotive into our territory swept away other modes of transportation, except by water, and became the swift civilizer of the prairie and wilderness. No other known power could have accomplished what we now behold, in the compass of a single generation.

In the spring of 1862 there was not a mile of railway in Minnesota. On June 30th, 1897, the aggregate length of our railways was 6,086.35 miles. It is quite difficult to fix the precise time of the very first agitation for a railway within our borders. There is some unwritten history which may here be snatched from oblivion. In 1847, Prof. Increase A. Lapham outlined a plan for two railroads, one from lake Superior and another from St. Paul, which were to meet on the Red river, below where Fergus Falls now is; and that point of junction was to be called Lapham. This gentleman carefully viewed the country and made a map of the routes and a written outline of his plans, which are in existence to this day. James M. Goodhue, in an editorial in the *Pioneer*, in 1850, gave the first prophetic vision of a Northern Pacific railway, and specifically outlined a northern route, which he believed was shorter and safer than the one then proposed from St. Louis to San Francisco. He cited the fact that there was then a trail from the Red river to the mouth of the Columbia river, over which mails were regularly carried by the American Fur Company. His article was headed "A Short Route to Oregon."

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Before the admission of Minnesota as a state, in 1858, many railroad companies had been chartered by the Territorial legislature. The first recorded effort was by J. W. Selby

of this city, who gave notice of the introduction of a bill on March 2nd, in the session of 1852, to incorporate the Lake Superior and Mississippi River Railroad Company. It passed in the House, but failed in the Council; but it actually became a law March 2nd, 1853, by a subsequent legislature. The second charter was granted to the Minnesota Western Railroad Company, March 3rd, 1853; and the third to the Louisiana and Minnesota Railroad Company March 5th, 1853. Not less than twenty-seven railroad companies were authorized and chartered from 1853 to 1857. But there was no life in any of them till March 3rd, 1857, when Congress made a magnificent grant of lands "for the purpose of aiding in the construction of railroads in the Territory of Minnesota." Then the scene changed, and on May 22nd, 1857, the Territorial legislature passed an act granting these Congressional lands to four corporations, namely, the Minnesota and Pacific Railroad Company, the Transit Railroad Company, the Root River Valley and Southern Minnesota Railroad Company, and the Minneapolis and Cedar Valley Railroad Company.

The state constitution, adopted October 13th, 1857, provided in Art. 9, Sec. 10, as follows: "The credit of the state shall never be given or loaned in aid of any individual, association, or corporation." But on March 9th, 1858, the state legislature passed an act submitting to the people an amendment of this section of the constitution, so as to permit the loaning of the credit of the state to the land grant railroad companies to the amount of five million dollars; and it was adopted by popular vote on April 15th. Grading on each of the recognized lines began, and Gov. Sibley delivered to each of the roads such bonds as they had earned under the conditions of the grant.

The railroad companies, however, failed to pay the interest on the bonds; work on the lines was practically suspended, and the five million loan amendment was repealed by a nearly unanimous popular vote, November 6th, 1860. During the year 1860, the state enforced its lien on each of the lines, and 26 became the owner of the franchises, lands, and roadbeds. Subsequently, in 1862, the state made new grants of these franchises and lands to other companies, thus infusing new life into these dead railways.

The first company to get the benefit of this new effort to revive the lapsed roads, was the Minnesota and Pacific, which reappeared with a new name, the St. Paul and Pacific Railroad Company. The franchises of the old line were conferred. March 10th, 1862, on Dwight Woodbury, Henry T. Welles, R. R. Nelson, Edmund Rice, Edwin A. C. Hatch, James E. Thompson, Leander Gorton, Richard Chute, William Lee, and their associates and successors. A contract was made with Elias F. Drake, of Ohio, and V. Winters, to construct that portion of the line between St. Paul and St. Anthony, and it was completed and running June 28th, 1862, and was the first railway in operation within the limits of our State. The establishment of this line gave an impetus to railway matters in Minnesota. Edmund Rice was the first president of this road. The first engine was named "William Crooks," and was run by Webster C. Gardner. President Rice went to Europe about this time, to solicit the first foreign capital in aid of railways in our state. He shipped back 3,000 tons of rails, and work was pushed on toward Breckenridge.

The second railway was begun in 1863. Section 25 of the original charter of the Minnesota and Pacific Railroad Company had authorized a line from Winona to St. Paul. On March 6th, 1863, a grant of state swamp lands was made to this line, and St. Paul gave it a bonus of \$50,000, being the first bonus to a railway in our state. The name was now changed to the St. Paul and Chicago Railroad Company. Edmund Rice was also the first president of this company. He again visited England and secured aid for the construction of the road, and work was prosecuted with diligence. He also went to Washington to secure an enlargement of the land grant. It was there I first met Edmund Rice. He was distributing magnificent bouquets to the wives of members of Congress with a princely hand. It is needless to add that he secured his land grant. This line was completed to La Crescent in 1872. Through eastern trains began running, via 27 Winona, in September, 1872. In a short time, this line was consolidated with the Chicago, Milwaukee and St. Paul, and its separate existence ceased.

In contrast with the convenience of travel and transportation of freight now afforded by this river valley route, I may recall the conditions of sixty years ago. En-me-ga-bow, the aged Indian pastor and co-worker of Bishop Whipple and Rev. J. A. Gilfillan among the Ojibways of northern Minnesota, who has been a welcome visitor at the White House in Washington, and who is yet living on the White Earth Reservation, has related the experiences encountered in his youth when he passed down the Mississippi, transporting his effects in his bark canoe from the Pillager bands in the north to Prairie du Chien and return, meeting no white man on the way except at Fort Snelling.

To follow the birth and development of our great railway lines is a task far beyond the limits of this paper. But we must notice the growth and influence of two or three systems upon the fortunes of our state, and from them learn the influence of all. Take the St. Paul and Sioux City Railroad Company. This company was incorporated in 1857, to build one of the lines of the Root River Valley and Southern Minnesota railroad. But in 1864 it was organized anew, and was called the Minnesota Valley Railroad Company. Under the operation of the Five Million Loan, some work had been done in 1858, between Mendota and Shakopee. This work had been suspended as upon other lines, but was revived under the act of 1864. The new incorporators were such men as E.F. Drake, John L. Merriam, J. C. Burbank, Capt. Russell Blakeley, and others. It was essentially a home institution, these men, who were citizens of St. Paul, furnishing the money to construct and equip the road. It was opened from Mendota to Shakopee on November 16th, 1865; to Belle Plaine, November 19th, 1866; to Mankato, October 12th, 1868; and to Sioux City in 1872. The telegraph was opened through at the same time. During all its building period, this railroad was owned and operated exclusively by St. Paul men. Its first president was E. F. Drake; its chief engineer was John B. Fish; its first superintendent was John F. Lincoln; and its 28 first conductor was Alanson Messer, who still retains the same position, and is an honored citizen of St. Paul. It is probable that Mr. Messer and the Hon. James Smith, Jr., attorney of the St. Paul and Duluth Railroad Company, are the two oldest railroad men in the state, in continuous service on the same line, their railway service being always within the limits

of our state. The building of this line gave a most important and valuable highway to the commerce of the great Minnesota valley. It furnished that character of transportation which the times demanded. It invited immigration, and speedily created a grand civilized kingdom in those rich solitudes which Le Sueur had bravely penetrated nearly two hundred years ago.

Take also the St. Paul and Duluth line. This first appeared under the name of the Nebraska and Lake Superior Railroad Company, chartered in 1857. It brings to our vision the honored names of Lyman Dayton, Capt. William L. Banning, James Smith, Jr., Parker Paine, and others, identified with its battles, its dark days, and its final triumph. It was completed to Duluth in 1870, by the aid of Philadelphia capitalists. The great function of this line was to unite the Mississippi river with the great lake waterways, and thus it became a powerful agent in regulating tariffs in the state. It is so situated that it could not make tariffs of its own, except for local purposes; but it was the regulator of tariffs. It was a sort of common highway for all the other lines to the head of the lake, and the great systems have always prorated with it. But its supreme function was to regulate our traffic in its relation to the great waterways, and in this it has served a noble purpose.

The Northern Pacific railroad early occupied a commanding position among our transportation systems. The building of a line from the head of the lake to the Pacific ocean, through the great northern zone, was pregnant with vast commercial interests to the future of Minnesota. Its building generated for us forces of trade and immigration which have been stupendous. Jay Cooke stands at the beginning of the great panorama, as its most conspicuous character; while Henry Villard rises before us as a monument at the completed end of this 29 transcontinental line. Its charter was granted by Congress, July 2nd, 1864, and was signed by Abraham Lincoln. It received a land grant commensurate with the magnitude of the undertaking. The 15th day of February, 1870, near Thomson Junction, on a winter's day, the first dirt was thrown in the presence of a great crowd by Col. J. B. Culver, of Duluth. On the 8th day of September, 1883, the last spike (not a gold one) was driven at Gold Creek, Montana. I witnessed the event, while holding a chair

on which stood Gen. U.S. Grant, the silent observer of this historic scene. Like some startling romance reads the history of the inception and the construction, amid almost insuperable difficulties, to its final completion, of this first northern continental highway. It was the new artery of the great northern zone of production. From lake Superior to Puget sound, the hum of activity prevailed. Cities sprung into existence, water-powers were developed, lumber, fishing, and mining interests were unfolded, under the incentive of this national highway. And it was Minnesota's good fortune to stand at the gateway, where her merchants were to toll this wonderful wealth. This colossal enterprise sent fresh blood into every vein of our young state, and no pen can dare even now to predict the multitude of benefits Minnesota will continue to derive from the fulfillment of the dreams of Carver, of Whitney, and of Cooke.

No better illustration can be given of the growth, mutations, tribulations, and influence of a system of transportation upon our state, than is to be found in the history of the old "St. Paul and Pacific railroad." Its original charter was granted May 22nd, 1857, to the Minnesota and Pacific Railroad Company. By act of the legislature, March 10th, 1862, it became the St. Paul and Pacific. We note how grandly each of these early titles uses the terminus "Pacific;" and yet not one person connected with its early fortunes ever dreamed of its reaching the waters of the western ocean. That was reserved for a later and more aggressive personage. Subsequently, May 23rd, 1879, it became the St. Paul, Minneapolis and Manitoba railway; and finally, March 10th, 1885, it was merged into a giant system, the Great Northern Railway Company, and that which had been provincial became continental. 30 When financial clouds lowered over this line, in the era of the St. Paul and Pacific, the mortgages upon the property were foreclosed, and, the entire property passed into the hands of a remarkable syndicate, in whose control it became the St. Paul, Minneapolis and Manitoba, and under their powerful sway, its destinies were wholly changed. The syndicate making the purchase were James J. Hill, George Stephen (now Lord Mount-Stephen), Donald A. Smith (now Sir Donald A. Smith, Lord Strathcona and Mount Royal), and Norman W. Kittson.

On the 10th day of July, 1856, there came to this territory from out of the woods of Canada, a young, unknown, blackeyed and black-haired lad, seeking fortune beneath Minnesota's propitious skies. That young man has had a greater influence upon the history of transportation in this state than any other person. His name is James J. Hill. He has witnessed and promoted the extraordinary development from the old system of transportation, in the era of Kittson, or of Blakeley, to the most modern railway. He has been boldly aggressive, continuously pounding away at the one purpose of achieving great results in the ever expanding problem of better transportation. During the five years when I was railway commissioner of the state, from 1882 to 1887, he practically rebuilt all the old lines of the Great Northern system in Minnesota. He improved the curves and established new gradients. The wooden trestles became roadways of earth and stone, and the old bridges steel. He made a standard system, where he found a temporary one. He found iron rails, and changed them to steel. The lines and spurs of his system penetrate every great grain district of our state. Cast your eyes upon our railway map, and see how its lines cross and recross, how they ramify and spur into every part of the territory they seek to serve. Four times within a hundred miles, distinct lines of this system cross the international boundary to the Canadian side, and they have thrown their bands of steel all over the Dakotas. They have brought many thousands of immigrants, and have added new counties to this state, new towns and cities, new wealth. Mr. Hill found freight rates about three cents per ton per mile, and he has reduced 31 them to about one cent. His system has been essentially a Minnesota system. It has entered vitally into the building of our great commonwealth. With increasing prosperity, and without land grants or government subsidies, he has extended this railway to the waters of Puget sound, opening an imperial highway across the continent in fulfillment of the prophecy of its earlier names.

His energy has wrought out one of the most instructive stories of human achievement. Hostile criticism falls harmless before such a career of unvarying success. Mr. Hill has fought his way into the anointed family of great men, and there is where, history will leave him. This railway system, of which he has been the head, has achieved for us the most

wonderful results, having created an empire by the services it has rendered, which will be an enduring monument of what a single system of transportation can do, when loyally and energetically directed to the welfare of the state.

It would be pleasant to linger and recount what other great railway systems have done for the state, such as the Chicago and Northwestern, the Chicago, Milwaukee and St. Paul, and others, but time will not admit.

We have twenty-four distinct railway systems within our state, aggregating 6,086 miles, not including sidetracks and yard facilities. Thirty-six years ago we did not possess one mile. Minnesota has about one mile of railway to every 13½ square miles of teritory; lowa, one to every 10; Wisconsin, one to 17; Kansas, one to 23. If we consider population as well as territory, we are about as well served as Massachusetts, or any of the older states. Such means of transportation and communication were never before the good fortune of any people. The elements inciting railway construction are still at work. Railways beget railways, and the end is not yet.

The twenty-four systems moved, within our state, in 1896, no less than 62,000,000 tons of freight, and carried over 31,000,000 passengers. We are actually startled at such figures, but they are official facts. The power of some of the companies is severely taxed to handle the traffic. The volume of railroad business is a good barometer of trade, and official 32 tables show that ours is constantly on the increase. With these facts before us, we can see that the days of Red river carts, stage coaches, and prairie schooners, are past. And even our rivers, as a squeezed orange, are quite thrown aside. As if by magic, our state has been tranformed into a checkerboard of steel bars, bringing modern transportation to the very doors of our people.

The colossal character of the grain movements in Minnesota are so stupendous that few persons have an adequate knowledge of their extent. I give you figures never before summarized for the public. The number of bushels of grain moved on Minnesota lines

during the year 1897 was 185,704,130, being 255,540 carloads. The average cost per ton per mile, to move the same, was 1½ cents. The average freight on wheat and corn from Duluth to Buffalo, in 1897, was 1.9 cents per bushel; in 1886, it was 5.2 cents; and in 1872, 12 cents. The average cost for freight, insurance, elevator charges, commission, and all other incidental charges on wheat from Duluth to London, in 1897, was 13½ cents. You could not procure the carriage of a single bushel of wheat from the capitol to the union depot, in this city, for less than 25 cents! Nothing has more specifically and materially affected our transportation problem than the constant and extraordinary reduction of tariff rates. No other necessity of human life has been more regularly and certainly cheapened to the people than the transporting of their persons and property. It is not only betterments and cheaper material that cheapen transportation, but the ever swelling volume of trade. It is the only thing known to me of which it can be said that, the more you feed it, the less it gets.

We have come through experience, and a system of evolution, to a better understanding of the laws which govern transportation. Governmental regulations should be few and simple, and strictly in accord with commercial and natural conditions. Every rate that is made to-day is made by influences beyond the control of the carrier. You cannot put railroads in straight jackets. Within reasonable restrictions, they should be left free, like other business, to the operations of competition.

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SUMMARY REVIEW.

Thus have I attempted to present to you the more salient features of the rise and growth of our varied systems of transportation, that mighty factor of our civilization. We have ascended the stream of time to the tumult of the unknown dead. We have carried copper with them, in nameless boats, through lakelet and river. We have paddled in the birch canoe of the historic Indian. We have seen strange fleets of early craft, loaded with pelts, stealing beneath the beetling rocks of our great lake, at the very twilight dawn of our story.

We have stood with Le Sueur, on the deck of his felucca, as he ascended our rivers two centuries ago. We have beheld the lordly fur companies as they strode upon the scene. carrying their transportation to the far off Great Slave lake, a region so distant that we ourselves have not yet dared to invade it. We have been with the scholarly Schoolcraft, in 1820, as he proudly waved his hand to the advent of his country's flag and vessels when they first made entry to the waters of the "unsalted sea." We have stood, with the early immigrants, on the decks of the first steamboats which ascended our streams. We have been with Kittson and heard the screeching of the greaseless wheels of a wonderful commerce that arose in the far North. We have travelled by dog sledges amid the solitude of snows. We have welcomed, with Edmund Rice, the scepter of a new king in that wonderful horse whose sinews are steel, and whose breath is steam, and have listened to the far echoes of his shrill whistle over our prairies, as it proclaimed the death of the old carriers and the birth of the new. We have beheld our railways rivet their bracelets of steel all over the bosom of our commonwealth, till every hamlet is served with highways better than Rome under the empire of the Cæsars ever dreamed of possessing. But, not content with granting superb facilities within our own limits, we have seen our aggressive men of affairs pick up the ends of the steel ribbons, pass beyond the barriers of the state, and carry them across a continent to the waters of the Pacific.

We are pleased to remember, this day, that this admirable system of transportation rests upon a base of inexhaustible 3 34 resources. We offer no Klondike, with specious gates of gold, amid pillars of ice, but that which is a thousand times better for morality and stability. Our resources challenge all that is good in the genius and energy of our sons. Over every square mile of our commonwealth, nature has spread her prodigal garniture with a princely hand. Ceres pours over us her wealth from the horn of plenty. But turn our soil and plant, and God's sun will kiss it into wealth. Only the voluntarily idle can be disinherited in Minnesota.

Possessing all these enriching conditions, even with but a respectable government and only a moderate race of statesmen, our splendid body of business men will still carry our

state forward to a superb destiny. When we consider that the greater and better part of all this has been wrought during the span of a single human life, we behold a miracle of performance, in which most of you were the living actors. Never again will life present the same magnificent drama of events as the panorama you have witnessed.

In surveying it all, I feel that, as the wise men of the East followed that star which came and stood over the place where the infant Savior was born, so we, impelled by some good Providence, followed the Star of the North, till it stood above a virgin empire of undeveloped wealth, which was for us, and for our children, the promised land.